

1 ABSTRACT

5 **Canting Ballast Twin Foil**

Sailing Yacht Ocean Racing Ballast Drive System

[24.00] A sailing yacht constructed according to the invention includes a sailing hull, a ballast, a ballast-supporting structure, and an onboard ballast drive system. The ballast-supporting structure supports the ballast beneath the sailing hull moveably in order to produce a counter-heeling force that can be varied underway. The ballast drive system moves the ballast-supporting structure in order to vary the counter-heeling force. The ballast drive system includes at least two hydraulic cylinders arranged to move the ballast-supporting structure in order to provide redundancy, increased safety, and increased force suitable for larger yachts. Preferably, a first one of the two hydraulic cylinders is mechanically connected between the ballast-supporting structure and a first portion of the hull, and a second one of the two hydraulic cylinders is mechanically connected between the ballast-supporting structure and a second portion of the hull for better load distribution against the hull structure.